

Endoscopic closure of a post-traumatic pancreatic fistula with interventional radiology techniques

A patient aged 54 years sustained predominantly abdominal, multiorgan trauma in a road traffic accident. A computed tomography (CT) scan showed rupture of the right hepatic lobe with a large amount of blood in the abdominal cavity. The patient underwent an emergency operation. Postoperatively there was leakage of the pancreatic contents (200–300 mL/24 h) and symptoms of acute pancreatitis. A follow-up CT scan revealed damaged pancreatic tissue at the border between the corpus and the tail (▶ Fig. 1). The pancreatic fistula was treated conservatively with total parenteral nutrition, octreotide, and antibiotics. Due to pus formation and transverse colon necrosis, four debridement procedures were carried out; the abscesses were drained and the transverse colon resected with formation of a descending colostomy [1,2]. After the inflammation was controlled and the pancreatic fistula was closed, enteral nutrition was initiated [3]. Octreotide withdrawal caused reappearance of the pancreatic fistula. After several laparotomy attempts, surgical closure of the fistula was deemed technically difficult. Therefore, a decision was made to close the fistula using an endoscopic approach. For this purpose, the large communication between the damaged pancreatic duct and the peritoneum was reduced by endoscopic retrograde cholangiopancreatography (ERCP) (▶ Fig. 2) [4,5]. With the use of interventional radiology techniques, a vascular coil was implanted into Wirsung's duct, just proximal to the site of the damage. The coil was additionally sealed with a tissue adhesive (▶ Fig. 3). Following this procedure, the pancreatic fistula, which had been persistent for several weeks, closed. The peripheral part of the pancreas did not cause any therapeutic difficulties. Placement of a vascular coil at the end of a torn Wirsung's duct causes increased pressure in this part of the duct and free flow of pancreatic juice into the duodenum is possible after sphincterotomy.

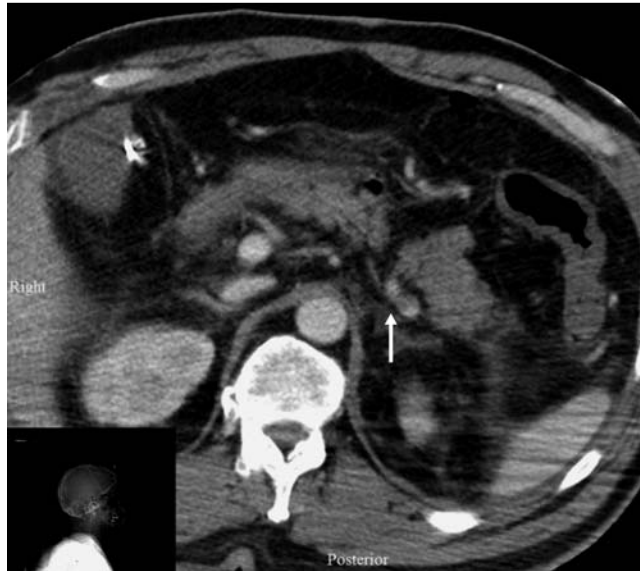


Fig. 1 Pancreatic damage at the border between the corpus and the tail.

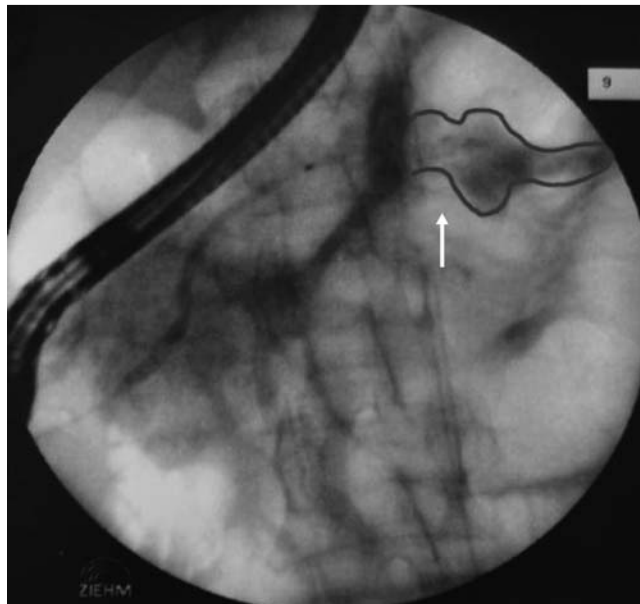


Fig. 2 The large opening between the damaged pancreatic duct and the peritoneum was reduced in size by endoscopic retrograde cholangiopancreatography (ERCP).

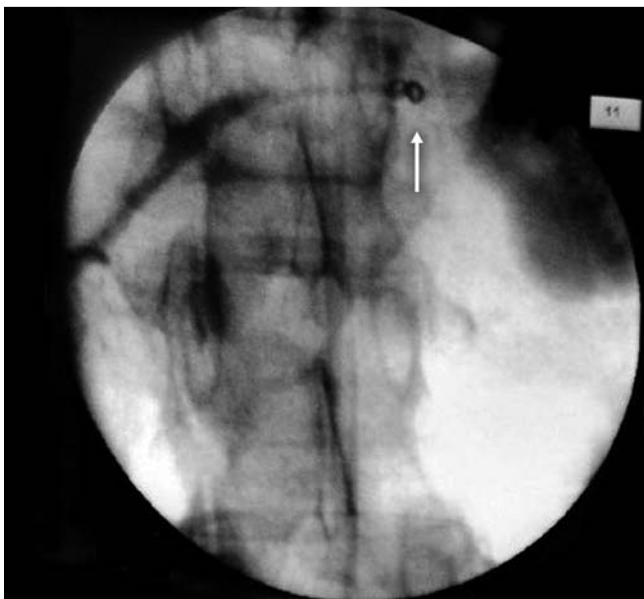


Fig. 3 Coil sealed with a tissue adhesive.

Competing interests: None

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